EPI Update for Friday, February 5, 2010
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Ciprofloxacin resistant *Neisseria meningitidis***
- **Be a wise user of lab tests**
- **Updated IDPH Disease Reporting Poster available from the ISAIC clearinghouse**
- **Meeting announcements and training opportunities**

Ciprofloxacin-resistant *Neisseria meningitidis*
Two imported cases of Group A *Neisseria meningitidis* were recently identified in Jefferson County. Group A is rarely reported from North or South America, but is more commonly diagnosed in Africa and Asia. (Group B and C are the types most commonly seen in Iowa, and W135 and Y do occur here). Bacteria from both cases were resistant to ciprofloxacin and tetracycline, but sensitive to ceftriaxone and azithromycin.

Health care providers who identify any person with invasive disease caused by *N. meningitidis* should send a bacterial isolate to UHL for confirmation and to identify the serogroup. If the person has had contact with individuals from Jefferson County, health care providers should be aware that it could be resistant to ciprofloxacin. If a meningococcal infection is suspected, please contact CADE at IDPH at 800-362-2736 to discuss the risk of it being group A and options for prophylaxis of exposed persons.

Be a wise user of lab tests
There are many new, easy-to-use tests for bacteria, parasites, and viruses now being marketed. Many of these use lateral flow immunoassay technology. When you consider using a new test it is important to note that no lab test performs correctly 100 percent of the time. The test performance is based on sensitivity (the proportion of sick people who test positive using the test), specificity (the proportion of well people who test negative using the test) and positive predictive value of the test (the likelihood of a positive test result in a person who has the disease).

For any test, there is always a trade-off between sensitivity and specificity; with high sensitivity there is lower specificity, and vice versa. In addition, the positive predictive value is related to the prevalence or how common the disease is in the population (which can differ depending on population and the time of year in the same population). When the positive predictive value of a test goes down, the number of false positives goes up. For example, compare two products designed to detect *Giardia* antigen in stool: Product A has a sensitivity of 97 percent and

specificity of 97.1 percent. Product B has a sensitivity of 95.1 percent and specificity of 88.4 percent. Since there is a low prevalence of giardiasis in Iowa, the numbers of false positives with Product B will be much higher.

If you start using a new test and begin to find an unexpected number of positive test results (compared to your prior method, or based on how much is actually occurring in your community), the reason could be false positive test results. If you suspect this is occurring, please contact IDPH or UHL for assistance in assessing the situation.

Updated Disease Reporting Poster available from the ISAIC clearinghouse
The updated *Iowa Department of Public Health Table of Reportable Communicable and Infectious Disease* (also called the IDPH Disease Reporting Poster, which describes the diseases required to be reported and how they should be reported) was revised in December 2009 and is now available from the Iowa Substance Abuse Information Center (ISAIC) Clearinghouse which distributes materials for the Iowa Department of Public Health.

The ISAIC Clearinghouse is a good source for free materials produced by several IDPH programs, including those that relate to infectious disease epidemiology, environmental health, HIV/AIDS, STDs, hepatitis, immunization, tobacco use prevention, and the Women, Infants, and Children (WIC) supplemental nutrition program. For information on obtaining materials from the clearinghouse, visit www.drugfreeinfo.org/state/cart.php or call (319) 861-2852. Orders forms can also be faxed to (319) 395-7797.

Meeting announcements and training opportunities
None

Have a healthy and happy week!
Center for Acute Disease Epidemiology
Iowa Department of Public Health
800-362-2736